

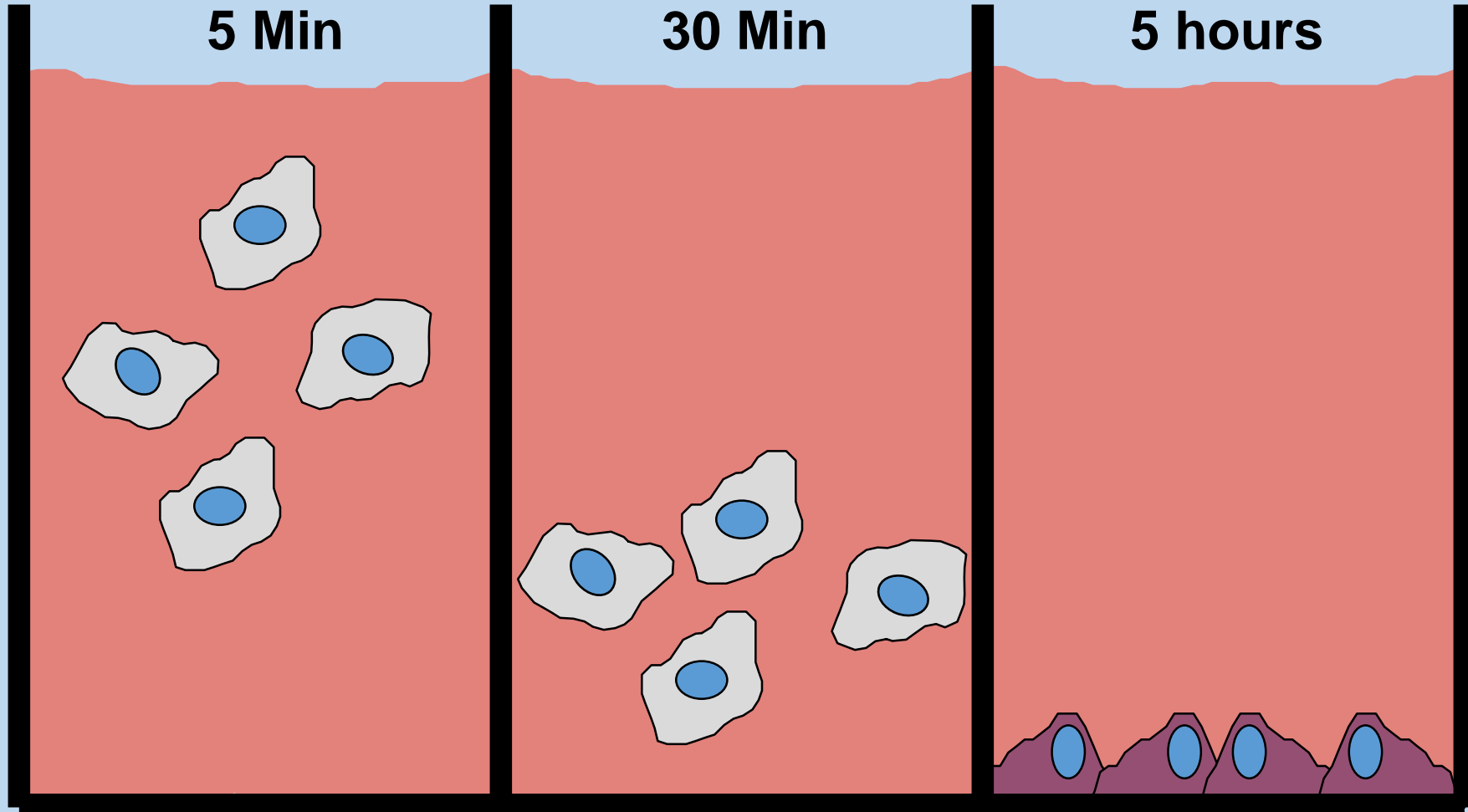
Ciencia y Tecnología Biomédica en la Estación Espacial Internacional



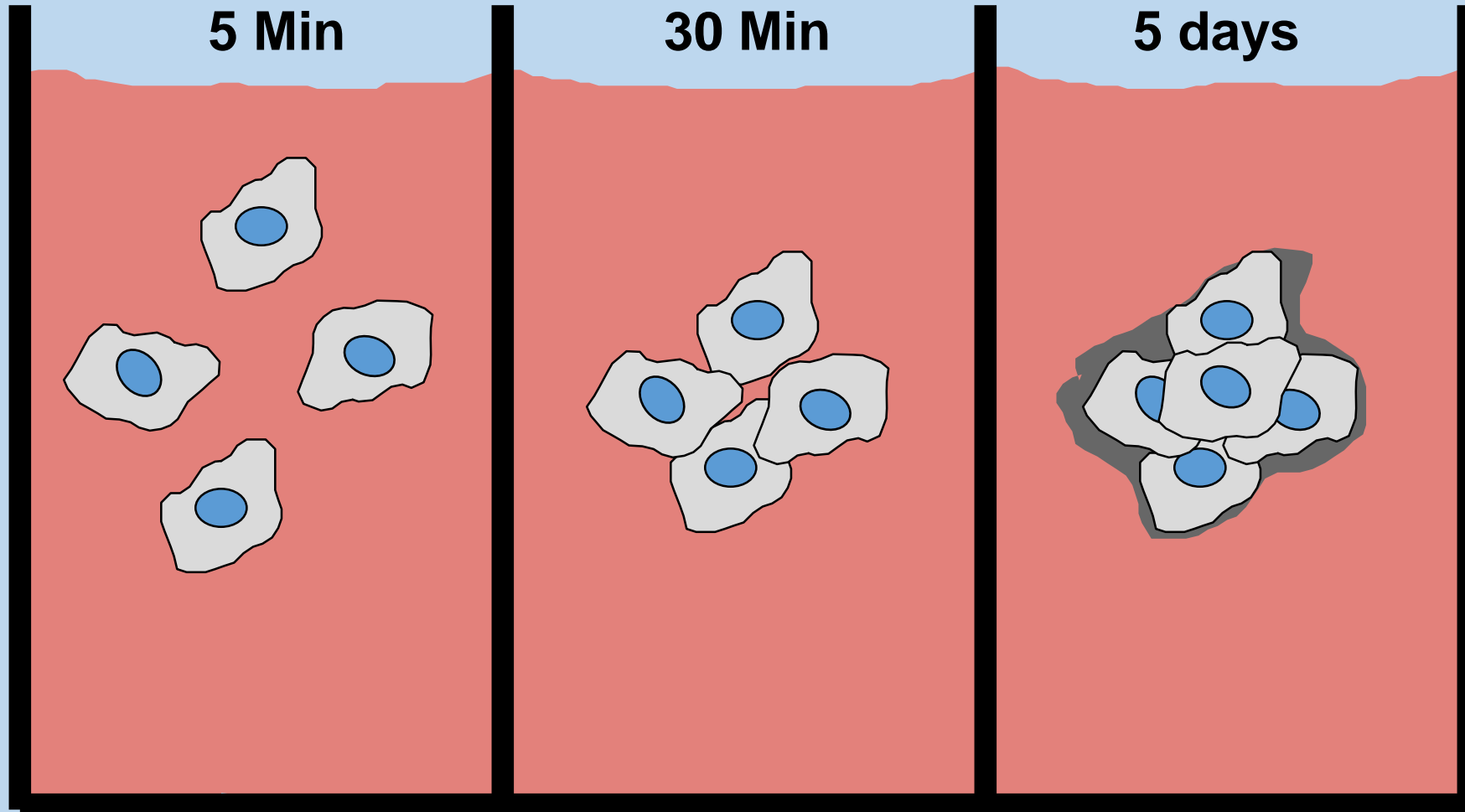
Beneficios para la Humanidad

ESI AMLAT Expo-Ciencias Latinoamericana
Antofagasta, Chile
2018

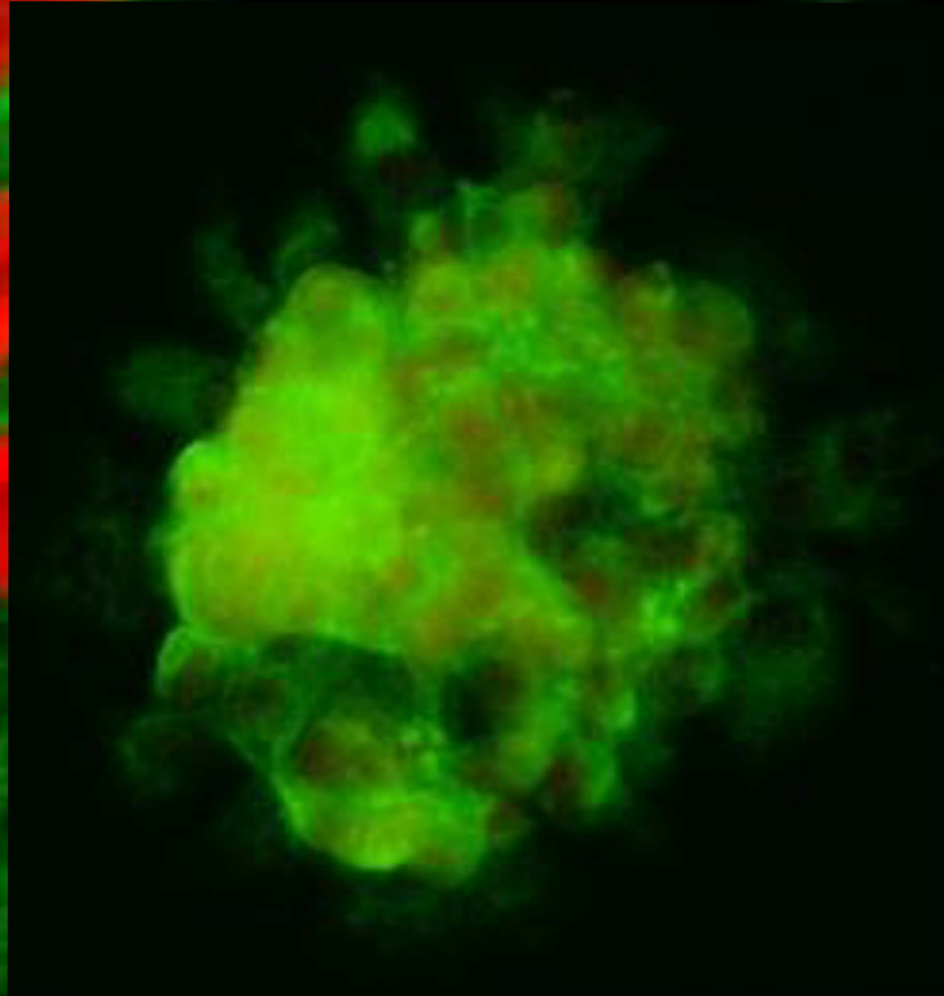
Cultivo de Células en Gravedad Terrestre



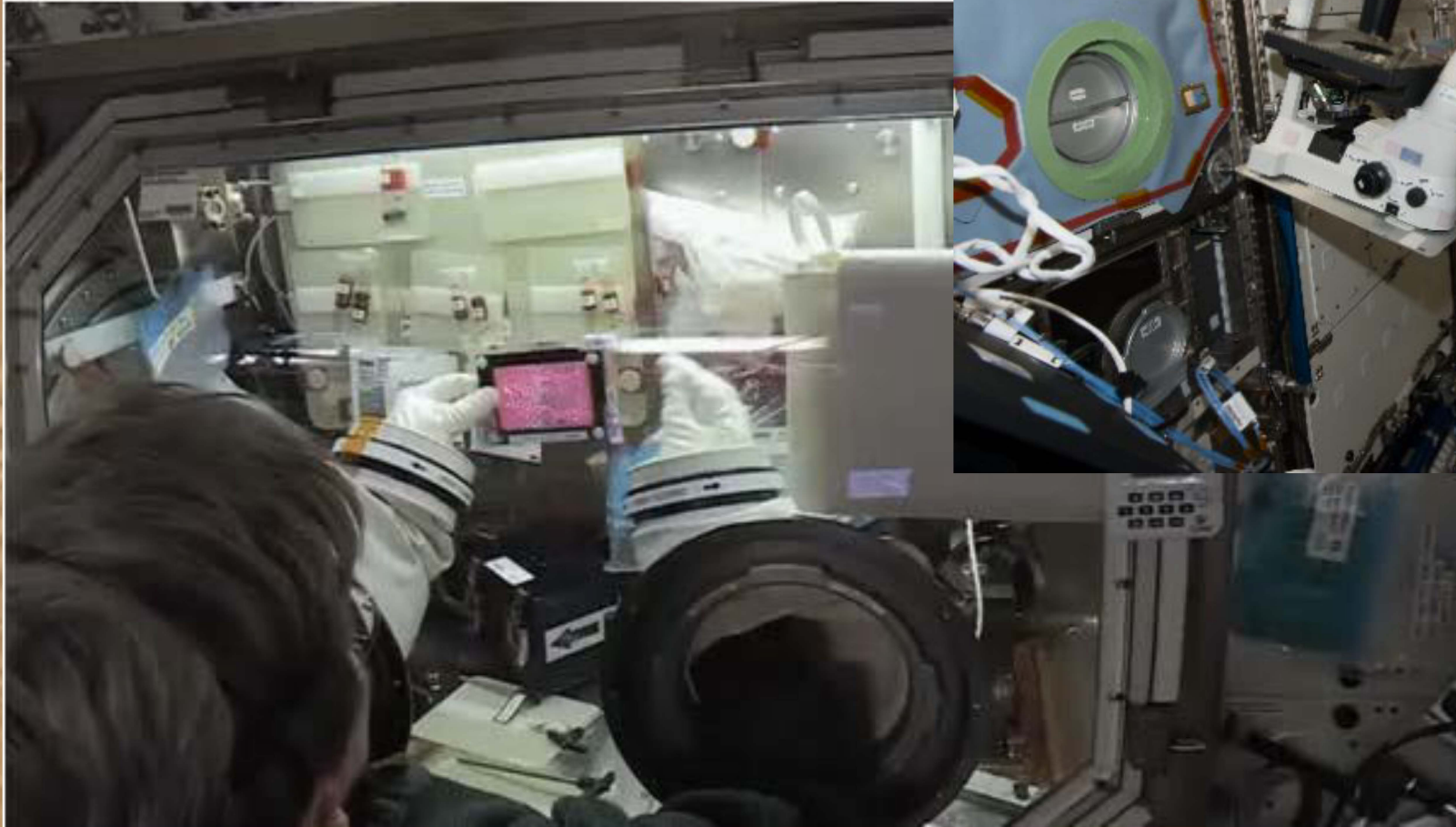
Cultivo de Células en Microgravedad Espacial



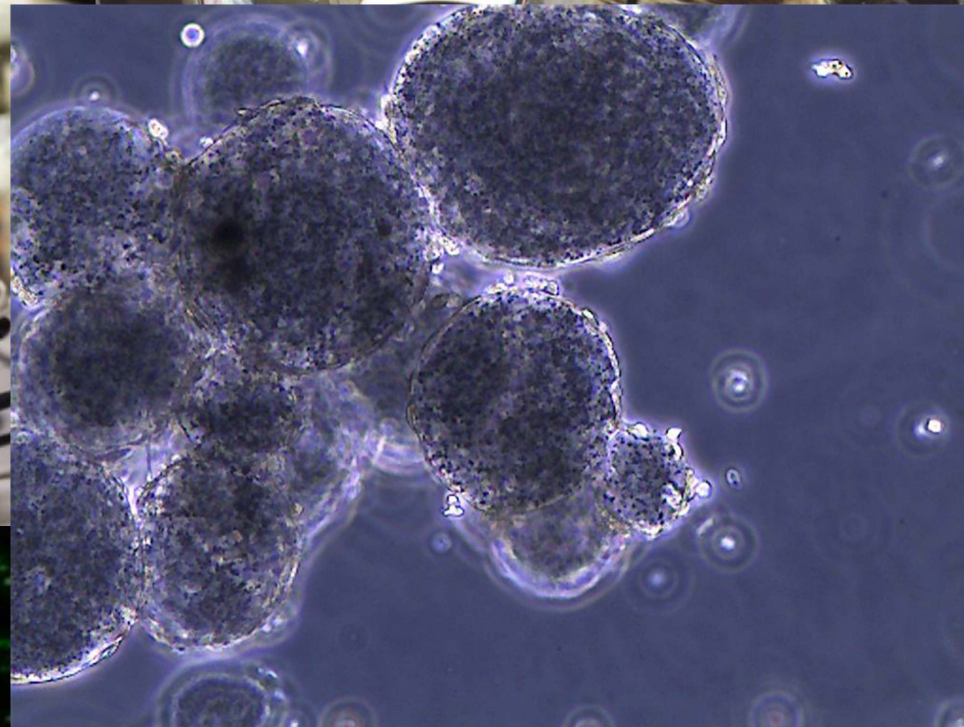
Ingeniería de Tejidos Celulares



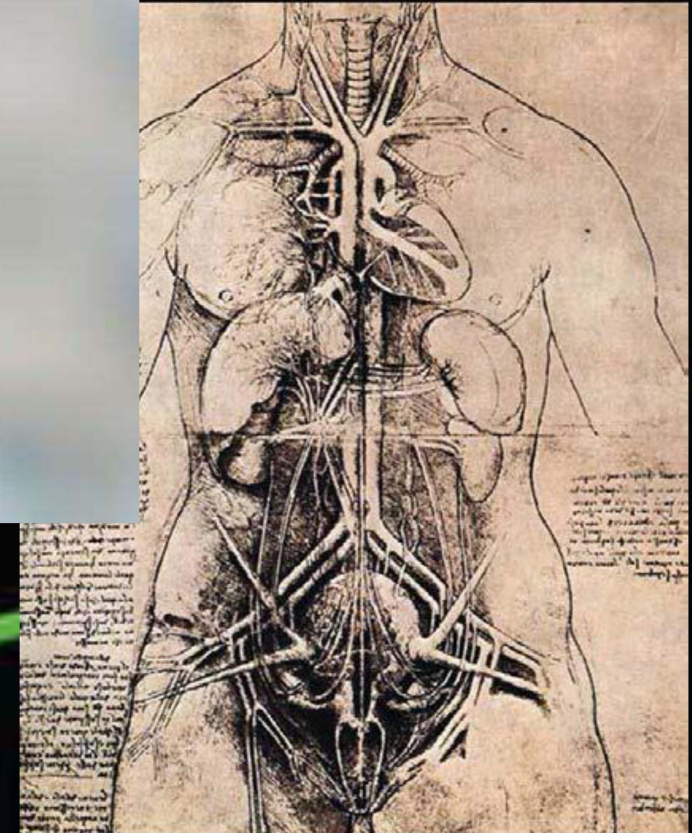
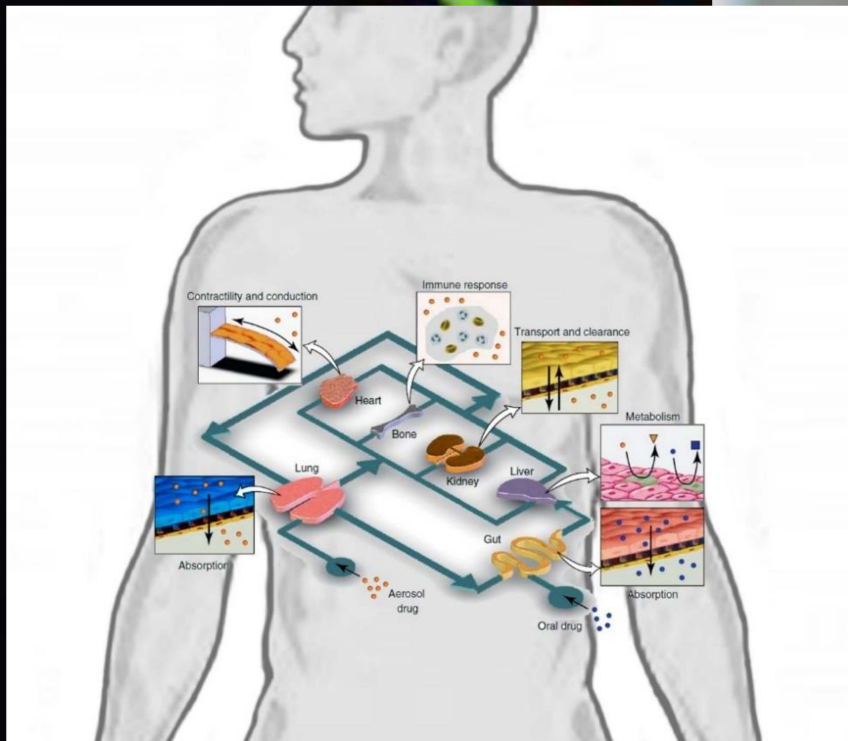
Cultivo de Células Progenitoras



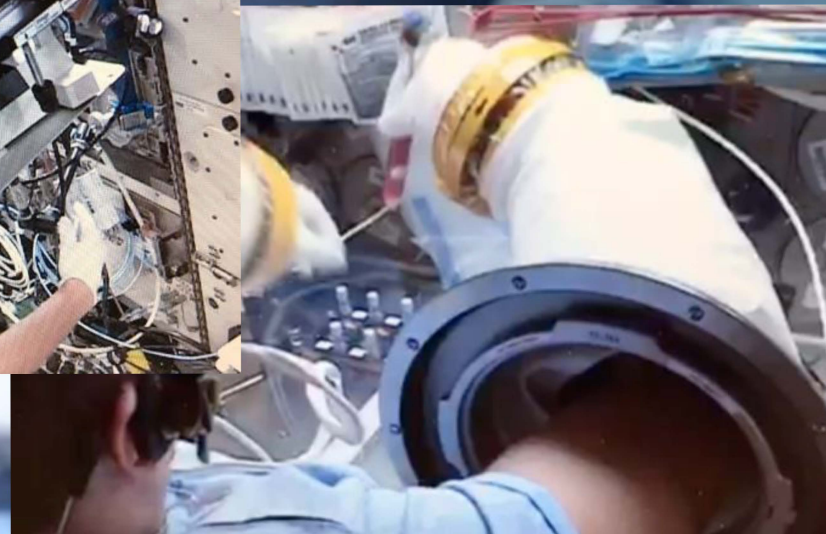
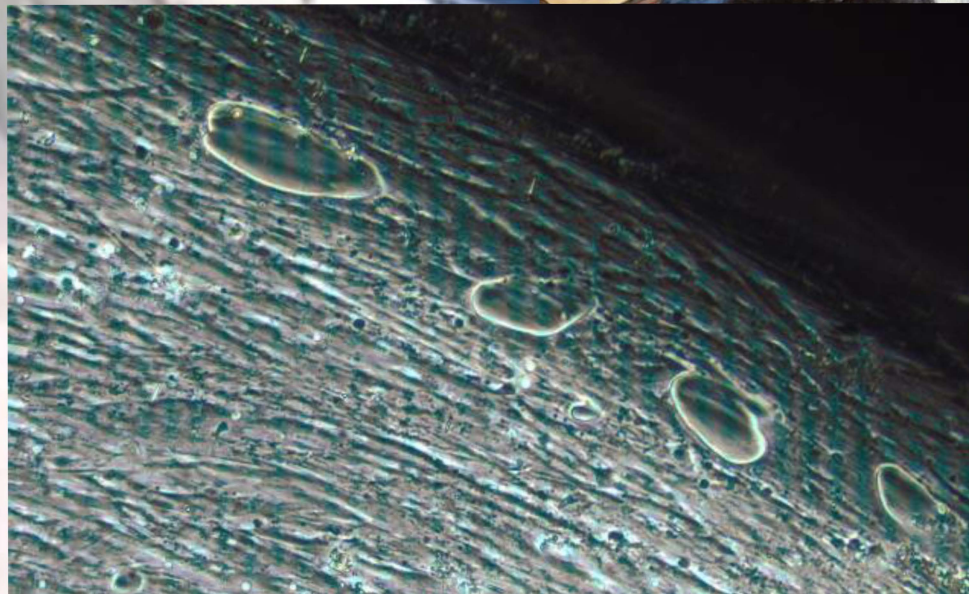
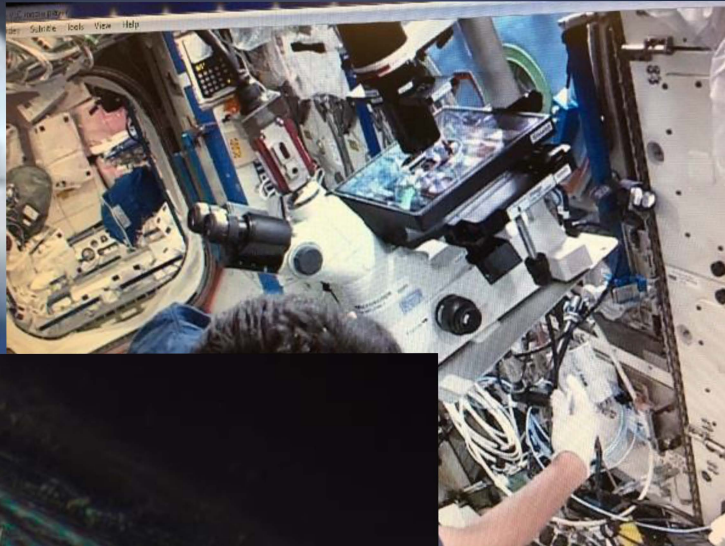
Modelos de Organos y Enfermedades



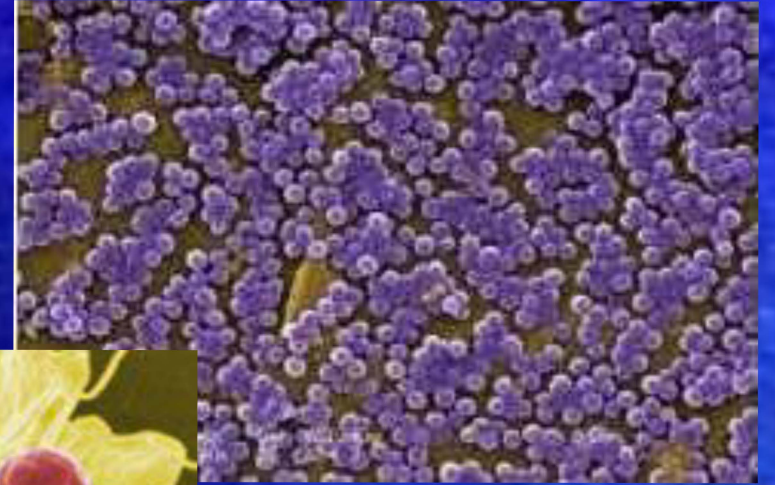
Organos en un Chip



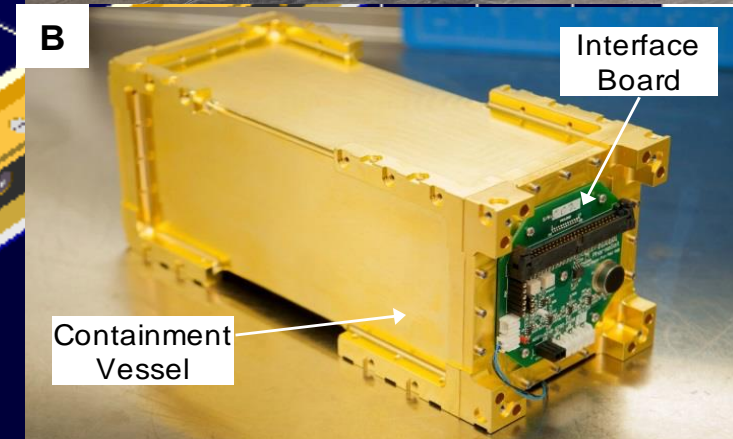
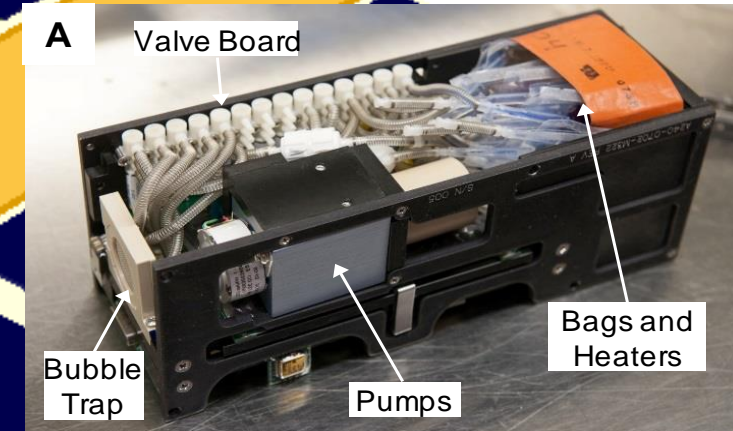
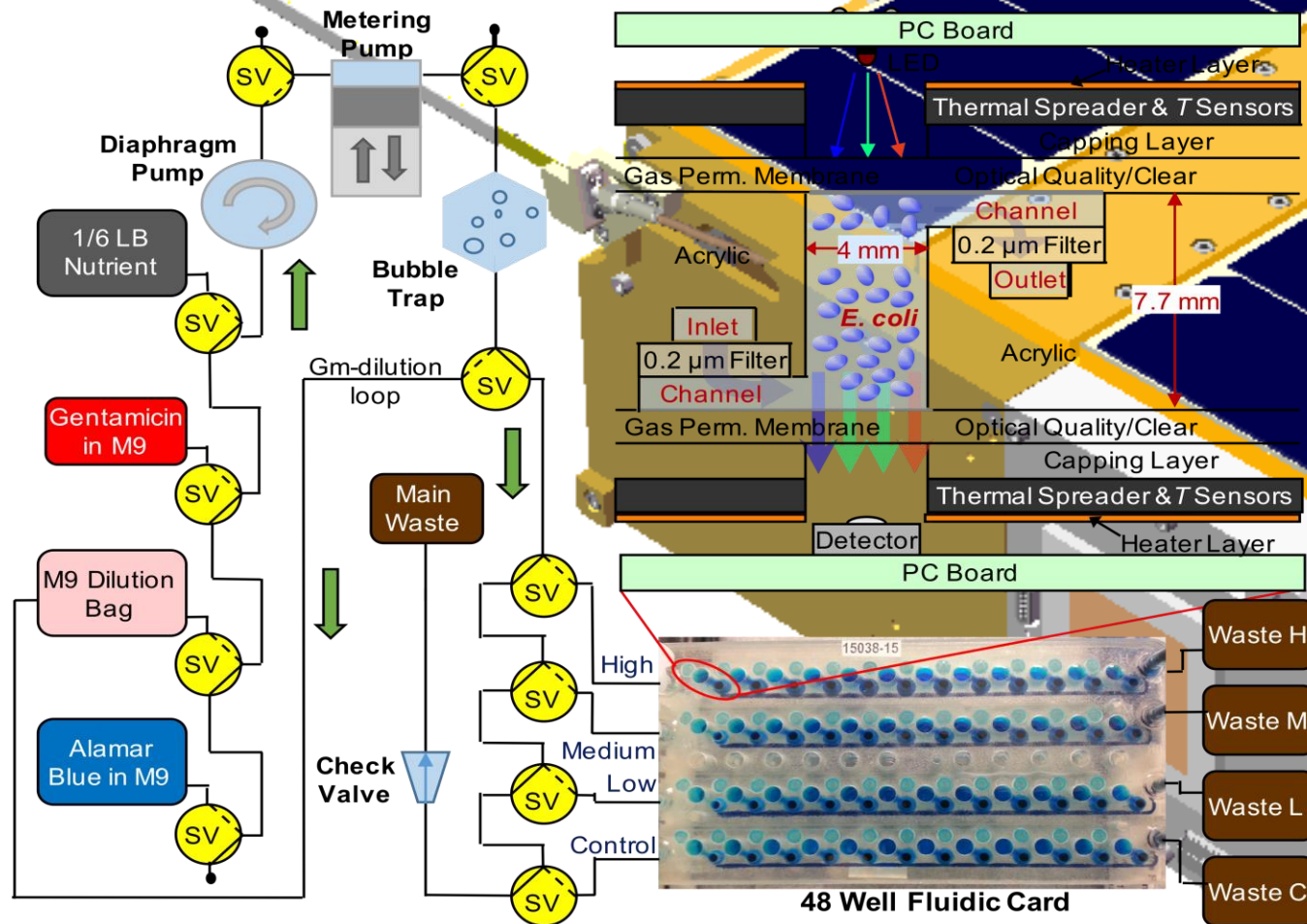
Bioingeniería



Desarrollo de Vacunas



Microsatélite Biológico Microfluídico

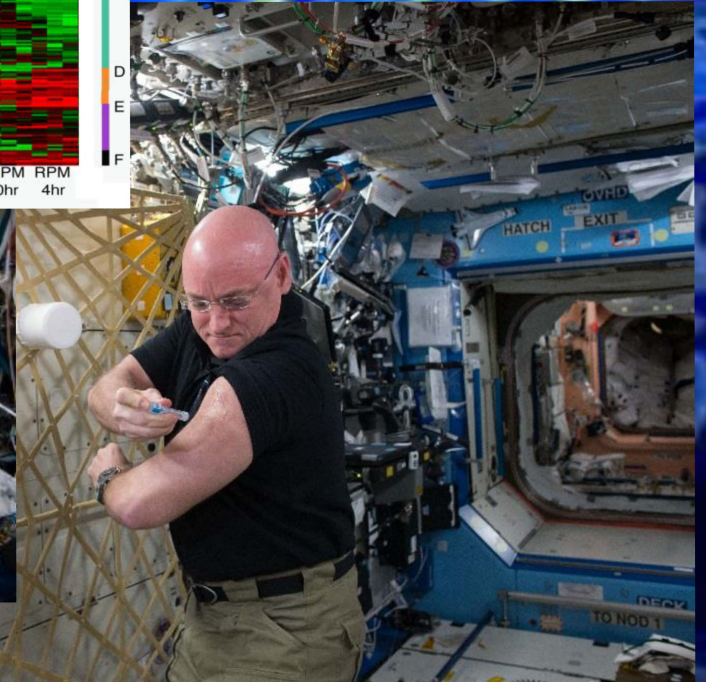
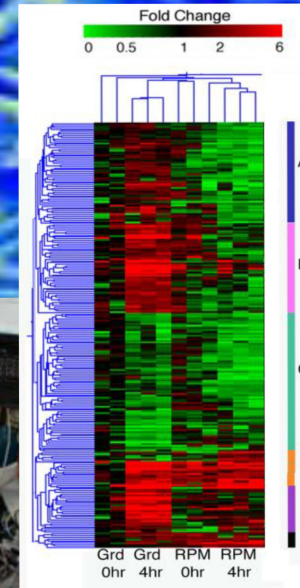
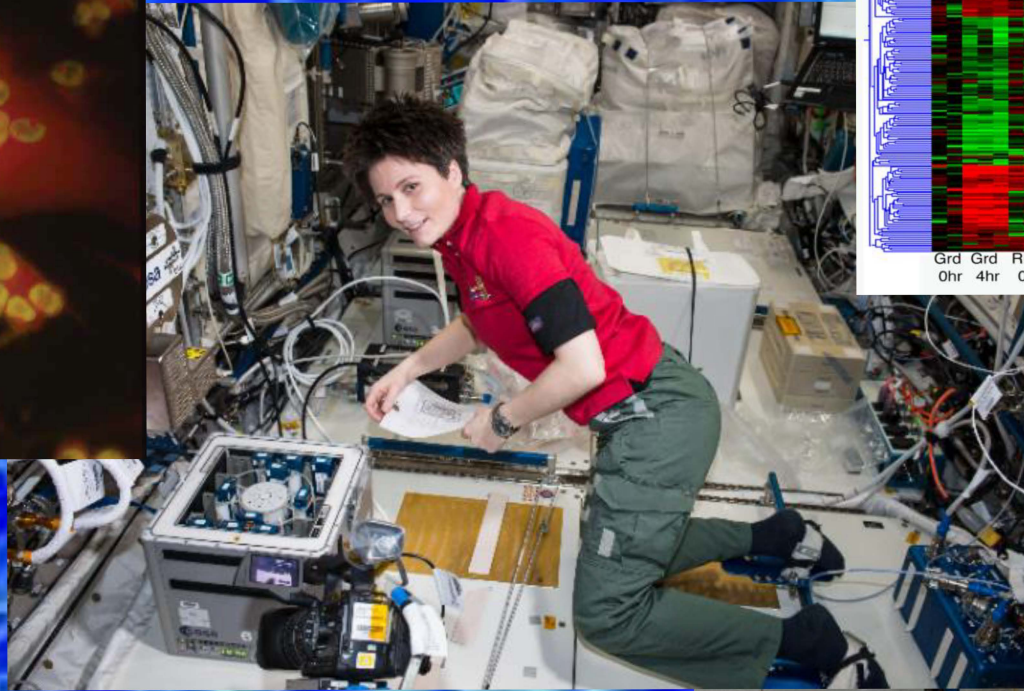
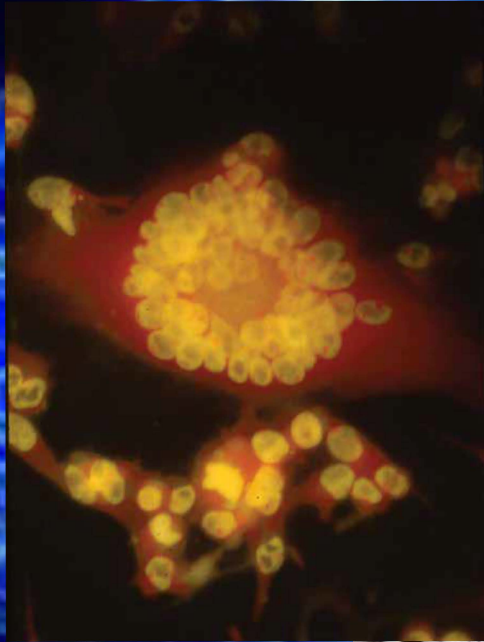


	Growth 48 hr	Challenge 48 hr	Measure 56 hr
Pumping	Growth to Stationary w/ 1/6 LB	Antibiotic Incubation	Alamar Blue Viability Measurements

Temp control ON: Incubate at 37°C

Optics ON: 15 min Readings

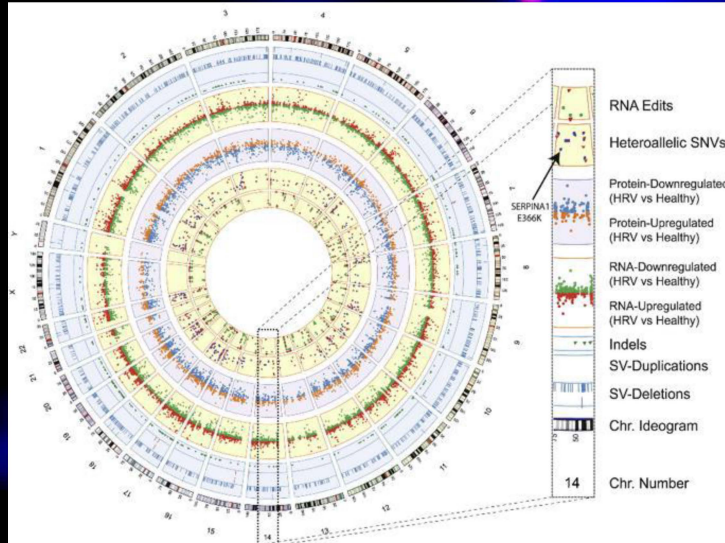
Inmunidad



Bioquímica de Nutrición



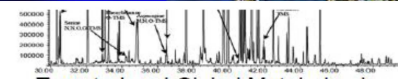
Análisis Omico Humano



Cognition
Basner



Microbiome
Turek



Targeted and Global Metabolomics
Lee/Rana, Mignot/Snyder & Smith



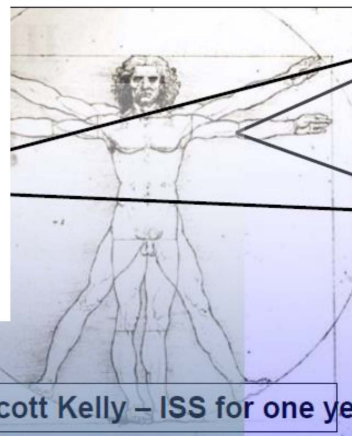
Cytokines
Mignot

Telomere Length
Bailey

B-cells / T-cells
Mignot

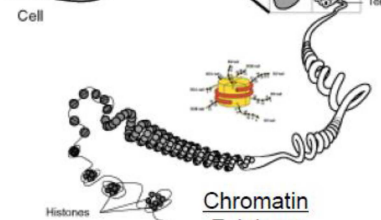
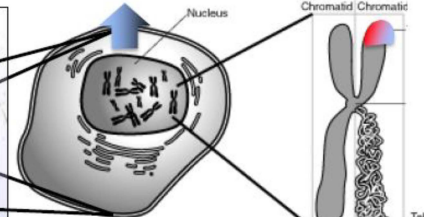


Antibodies
Mignot/Snyder



Scott Kelly – ISS for one year

Mark Kelly – Earth control

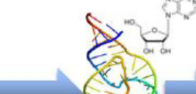


Chromatin
Feinberg

DNA Mutations
Feinberg

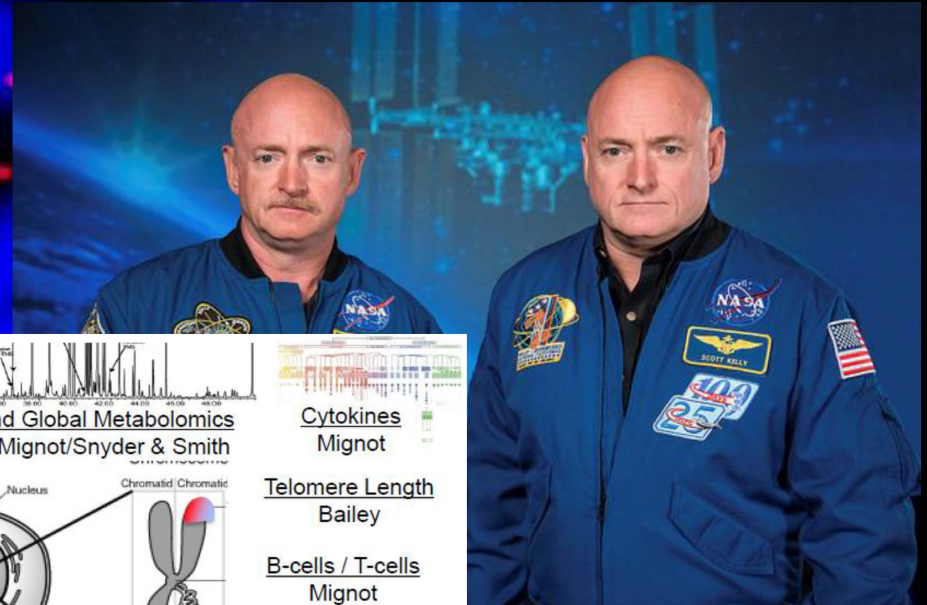
DNA Hydroxy-methylation
Mason

DNA Methylation
Feinberg & Mason

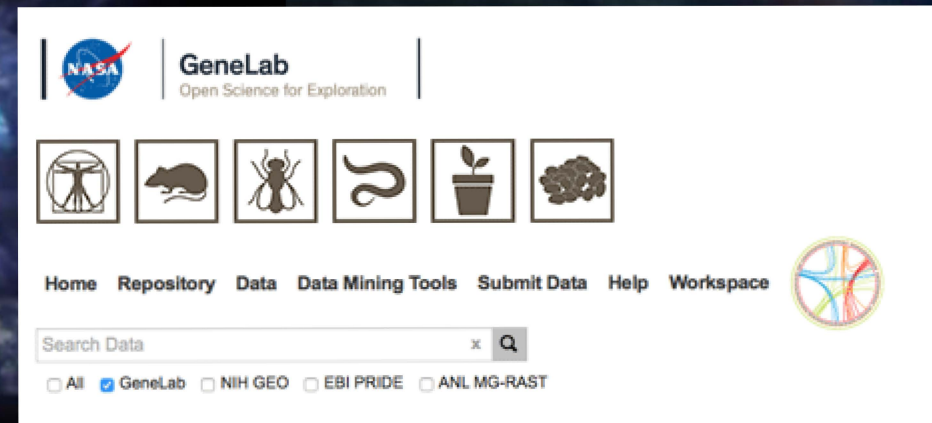


large/small RNA & RNA Methylation
Mason

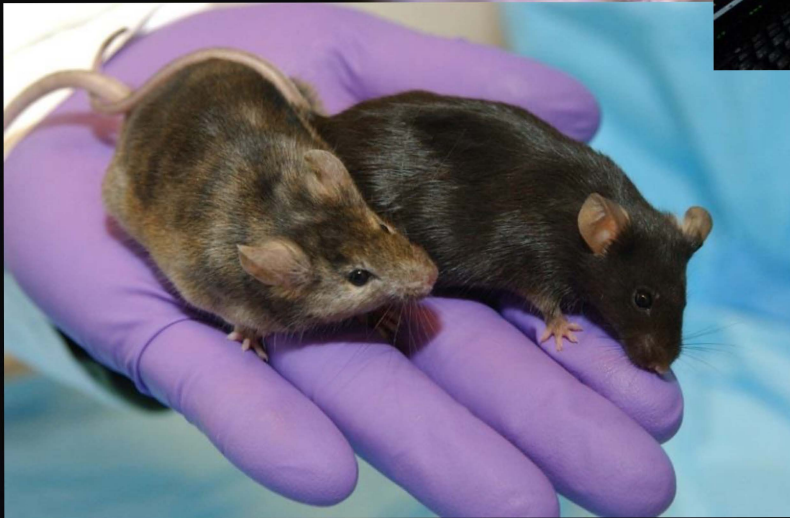
Proteomics
Lee/Rana



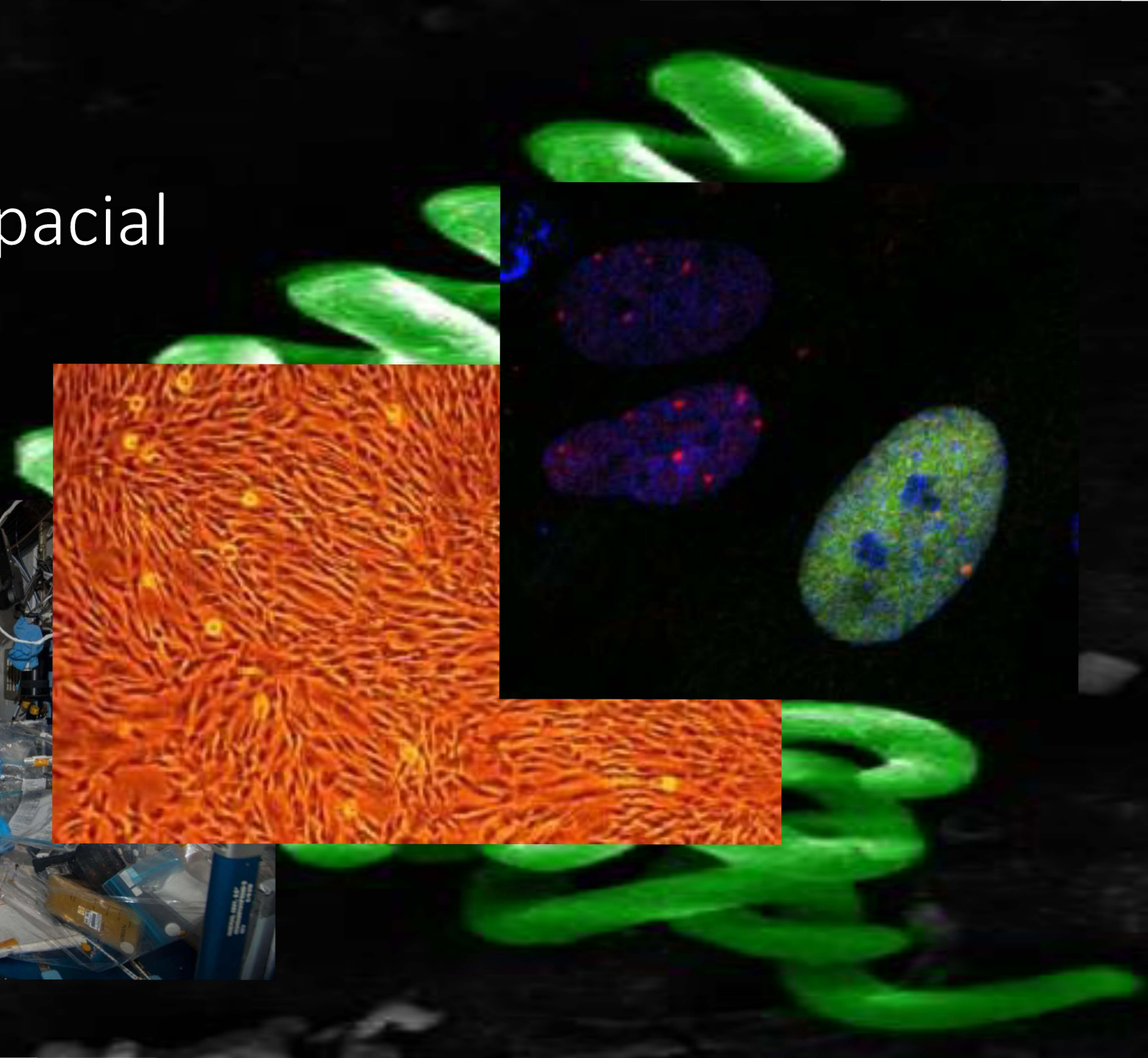
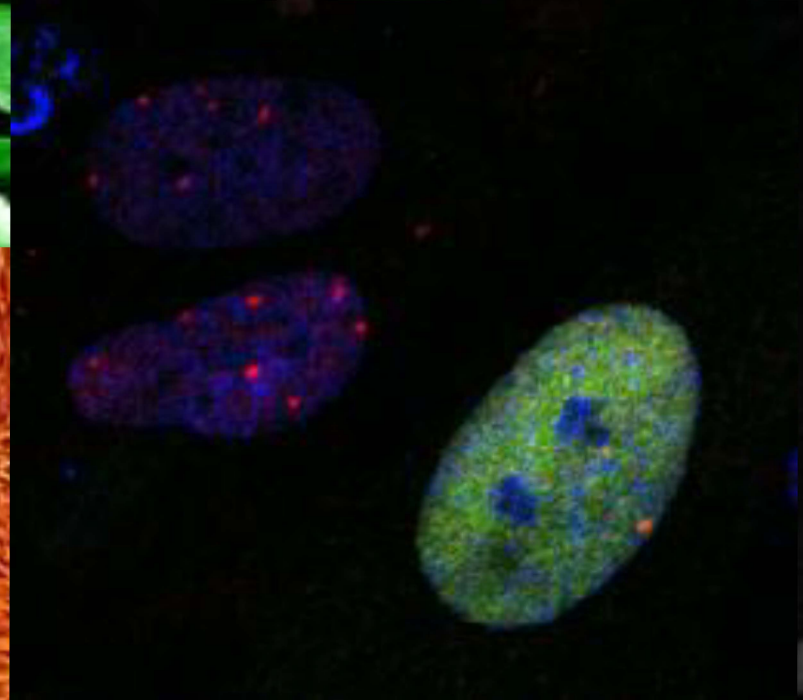
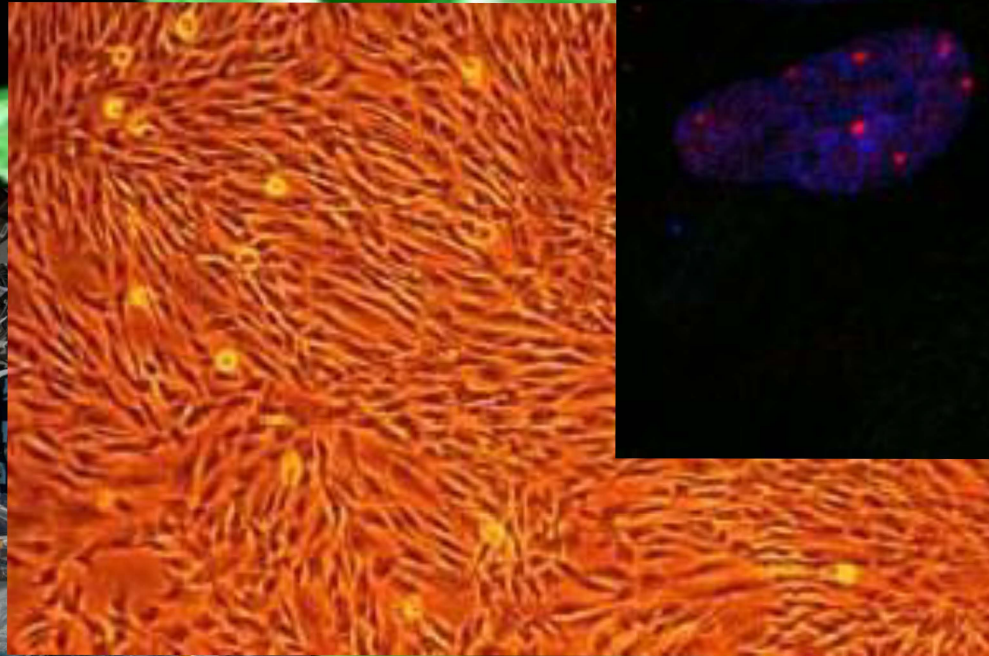
Informática Genética



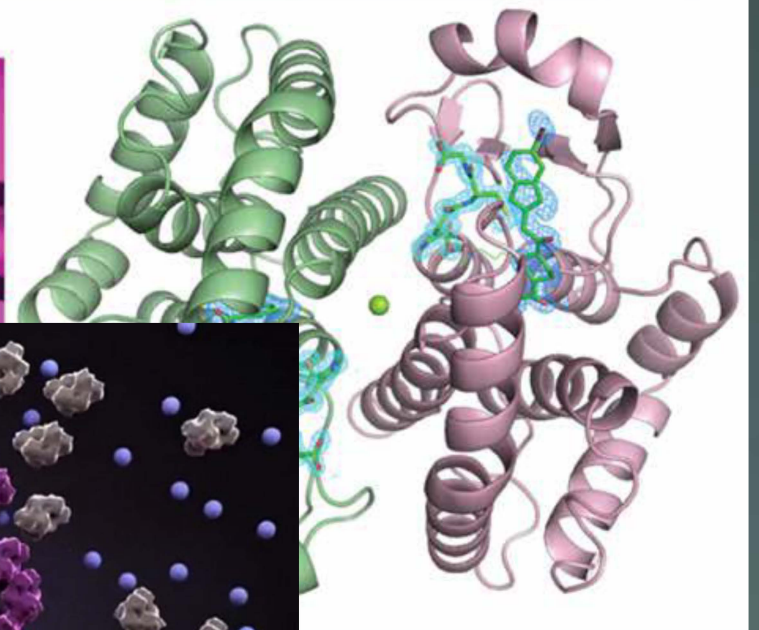
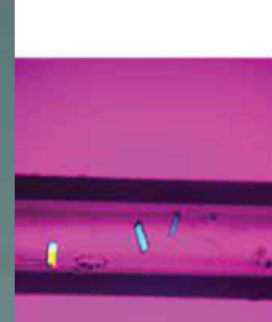
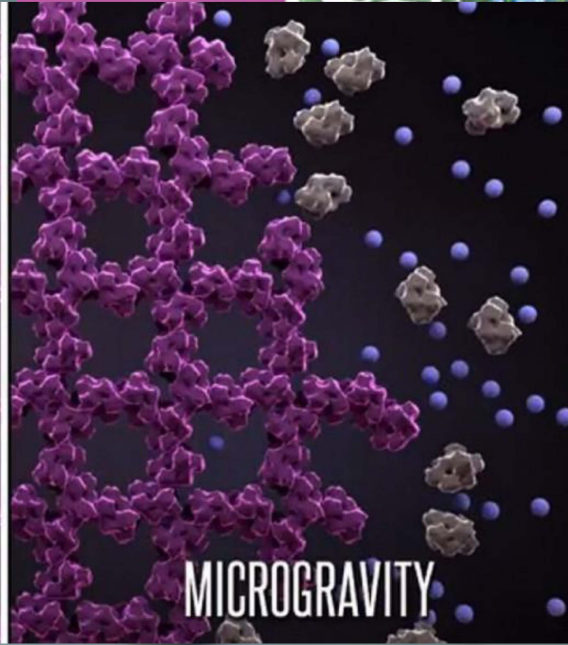
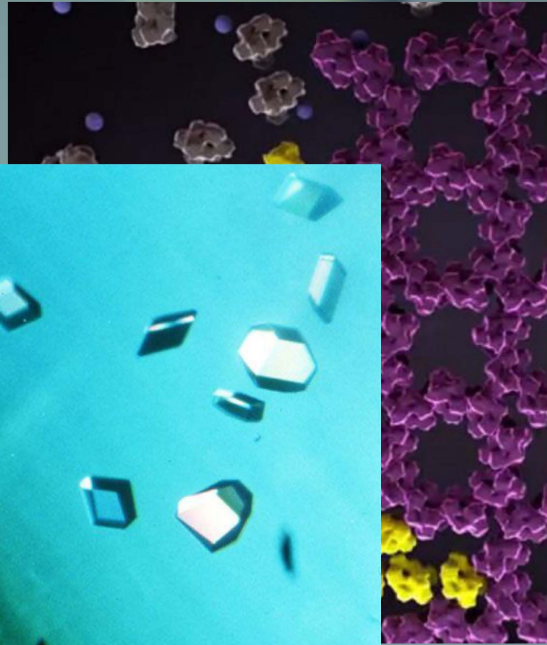
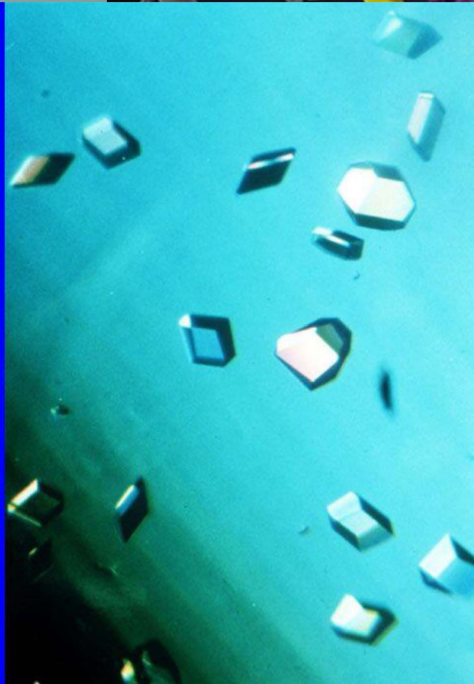
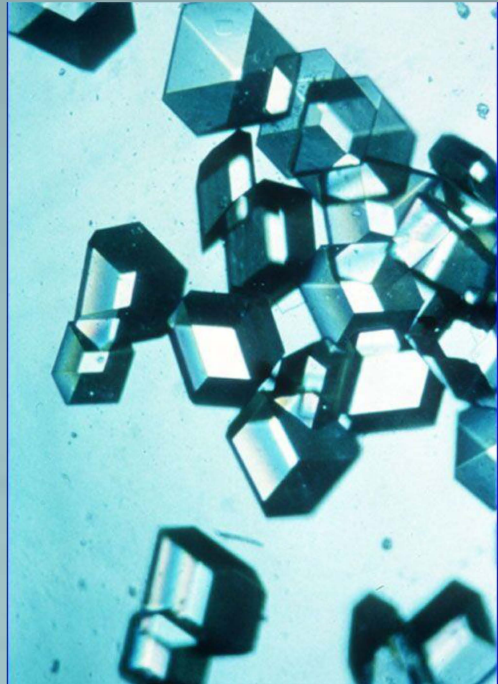
Organismos Modelo



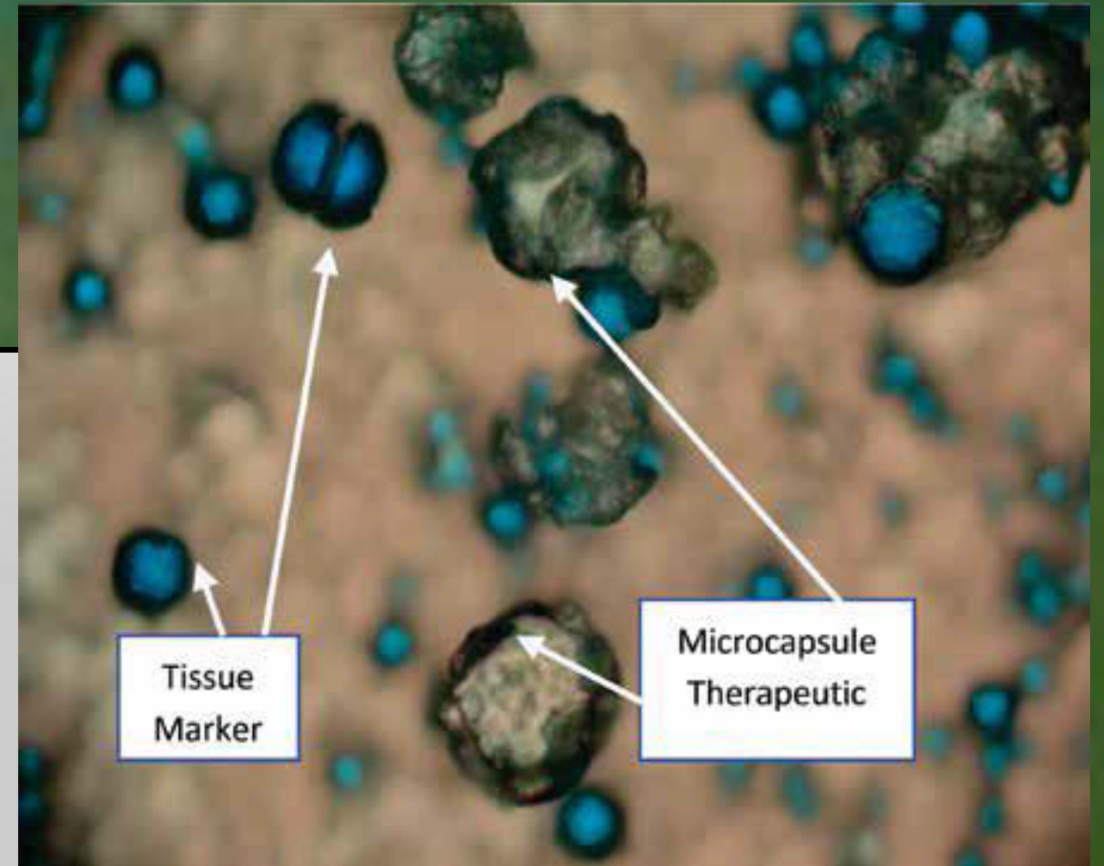
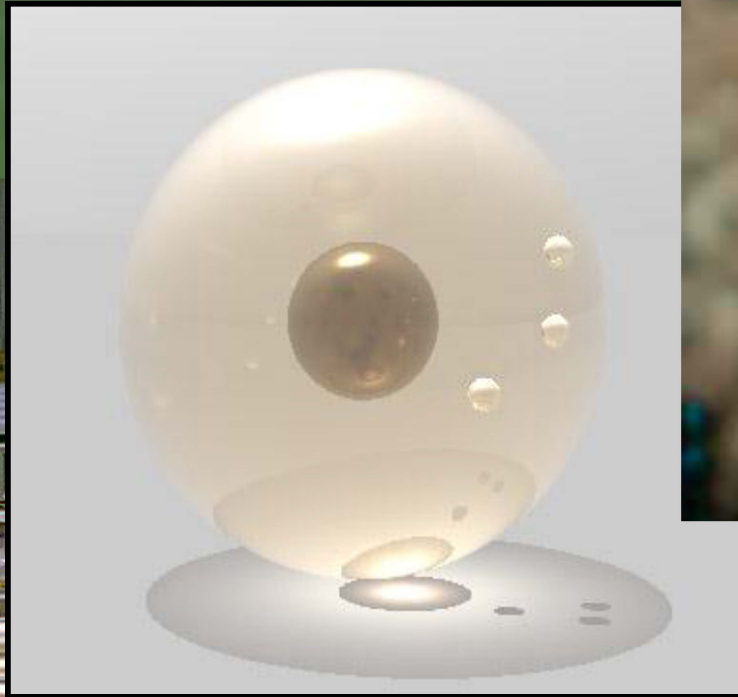
Efectos del Ambiente Espacial



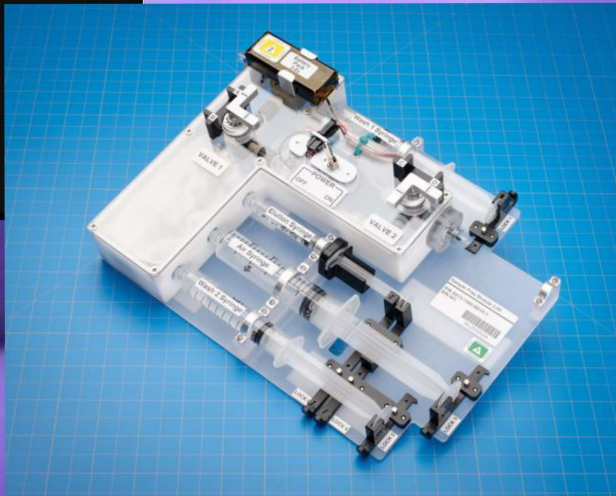
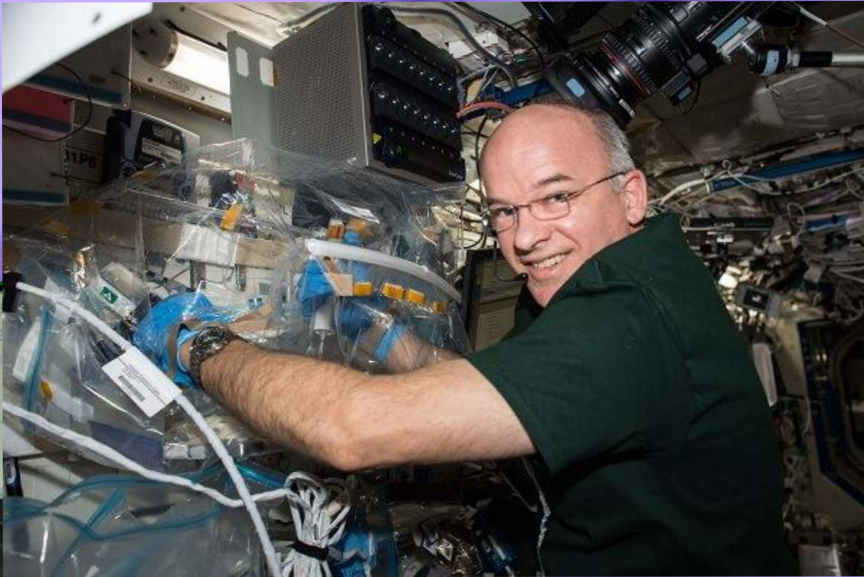
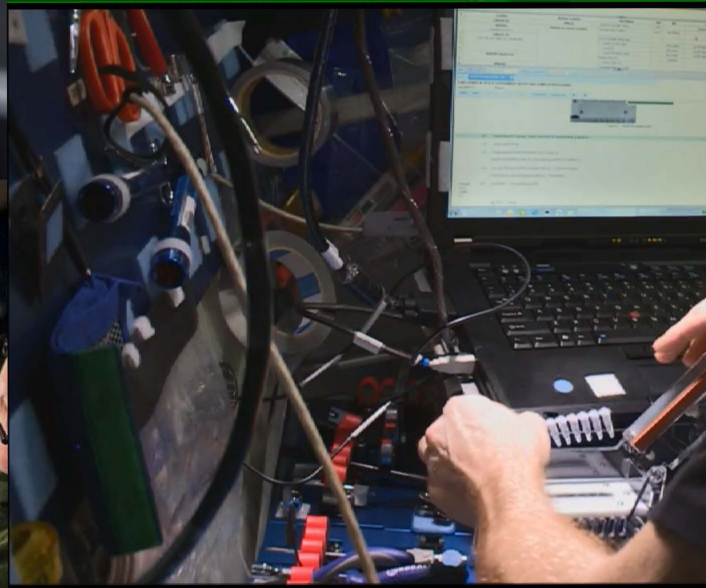
Crecimiento de Cristales Macromoleculares



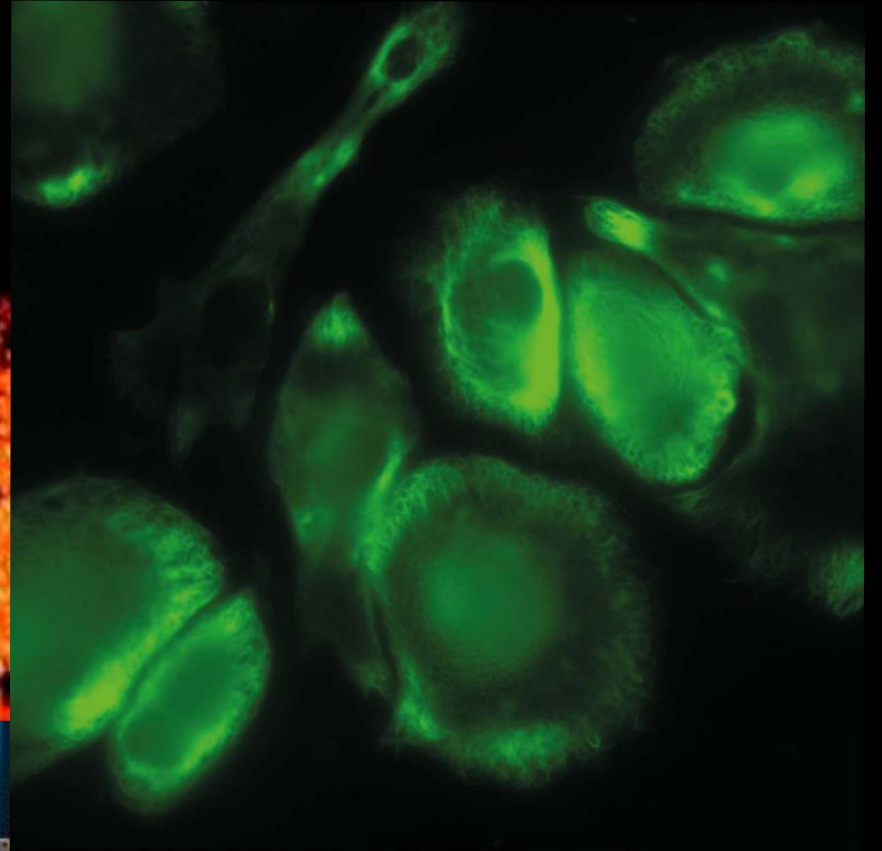
Microencapsulación de Medicinas



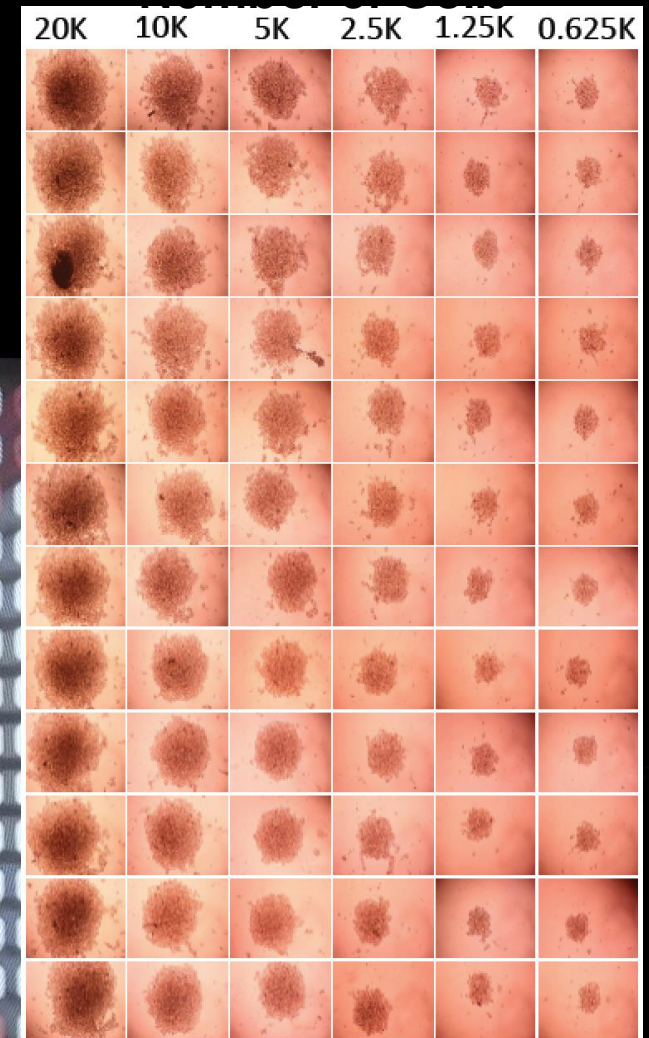
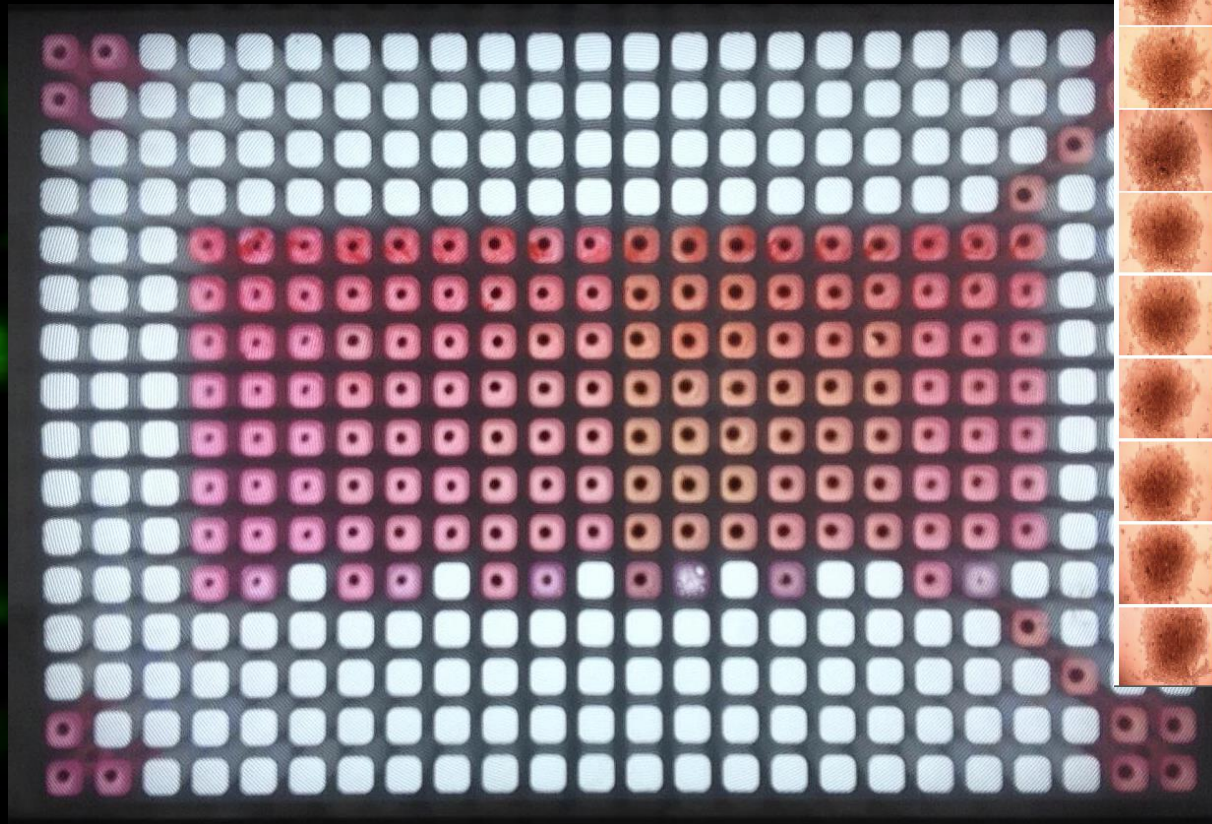
Análisis Biomoleculares



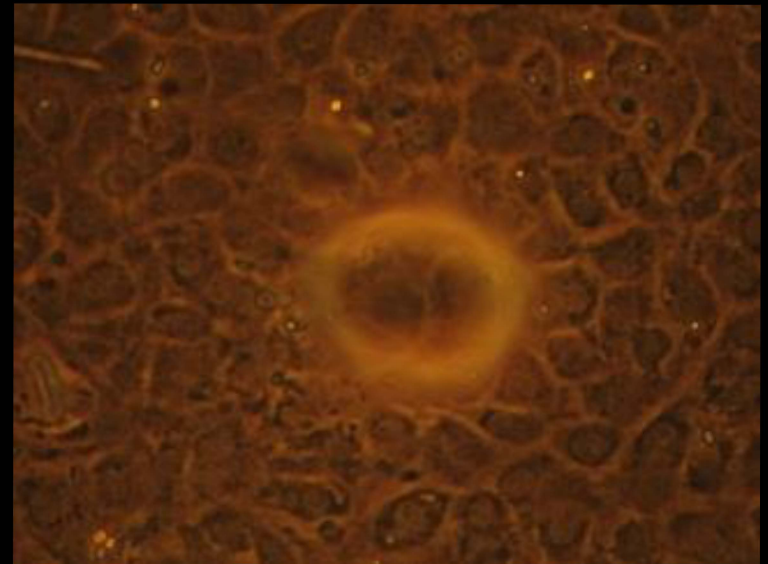
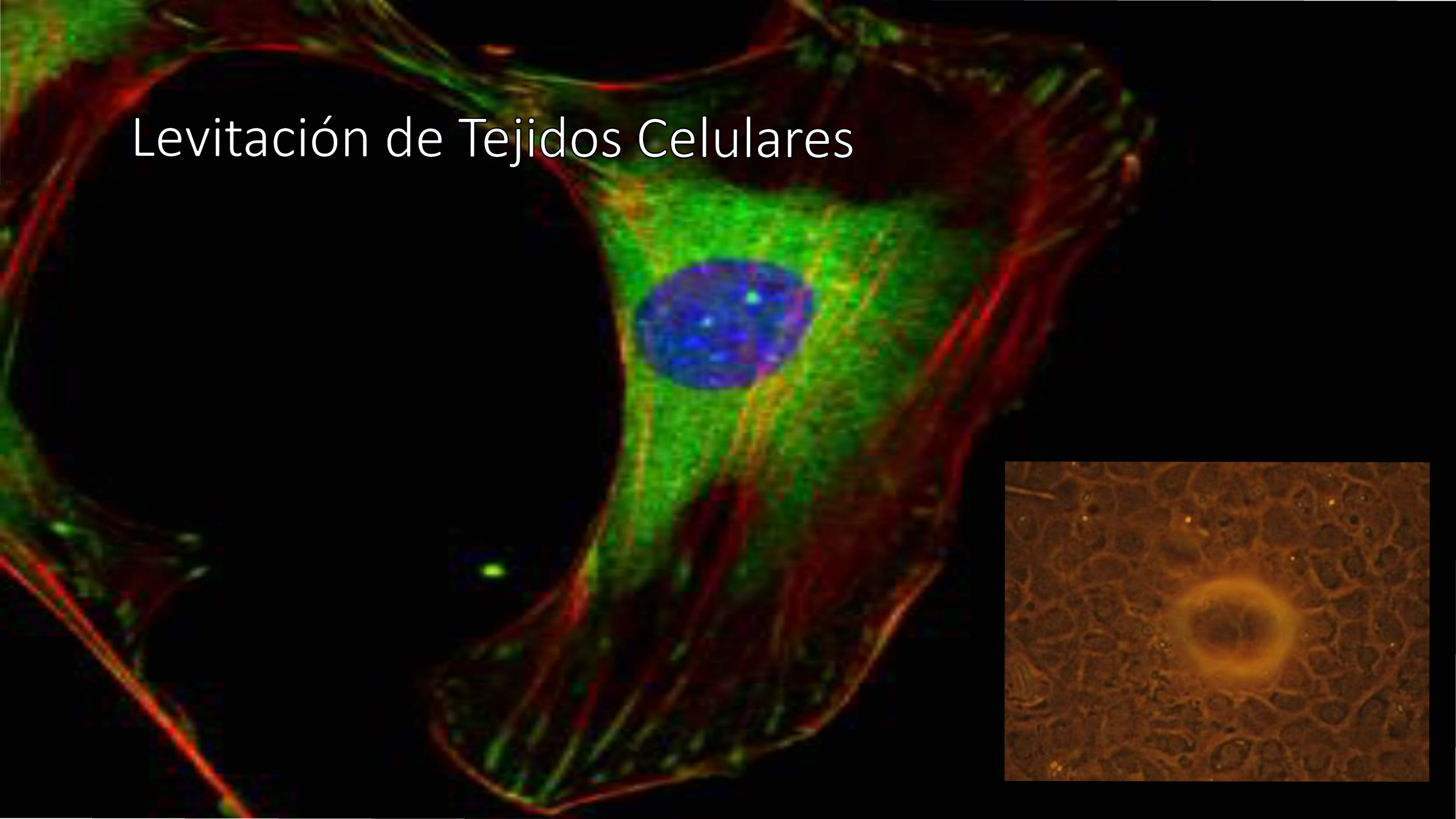
Microscopía Confocal



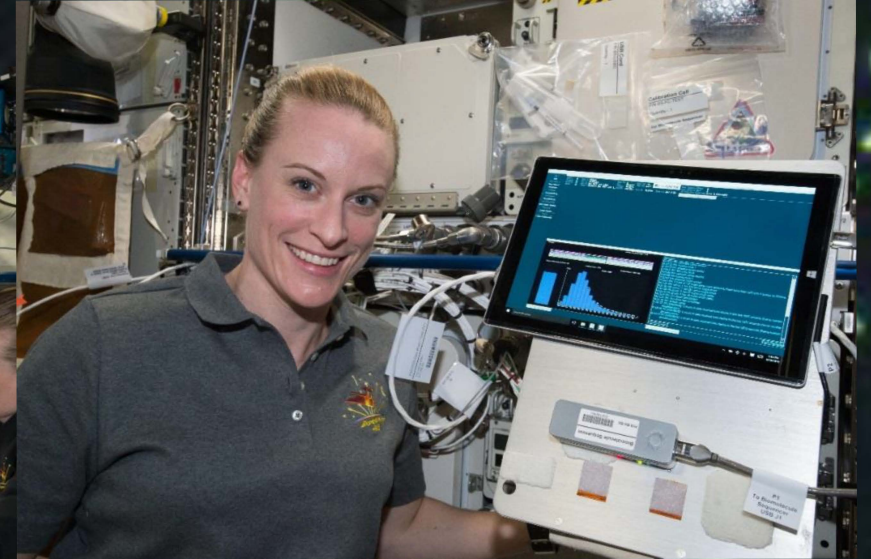
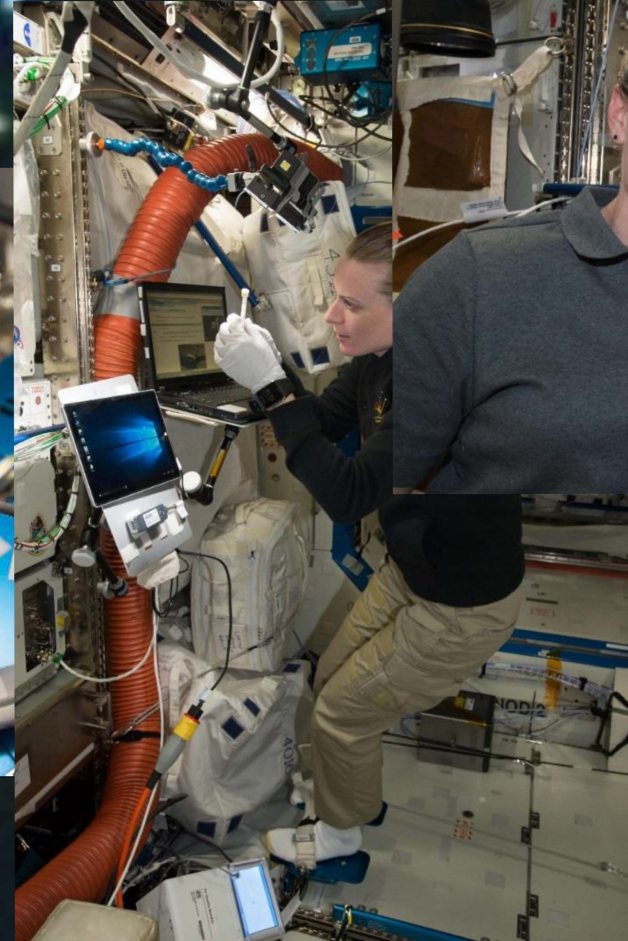
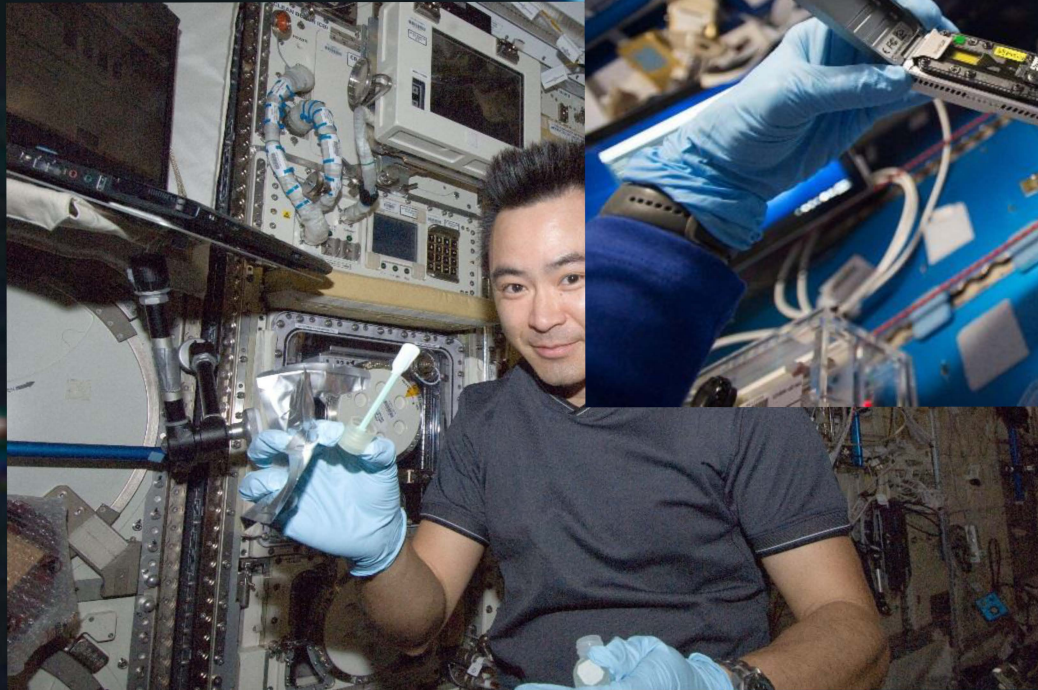
Bioimpresión Tridimensional



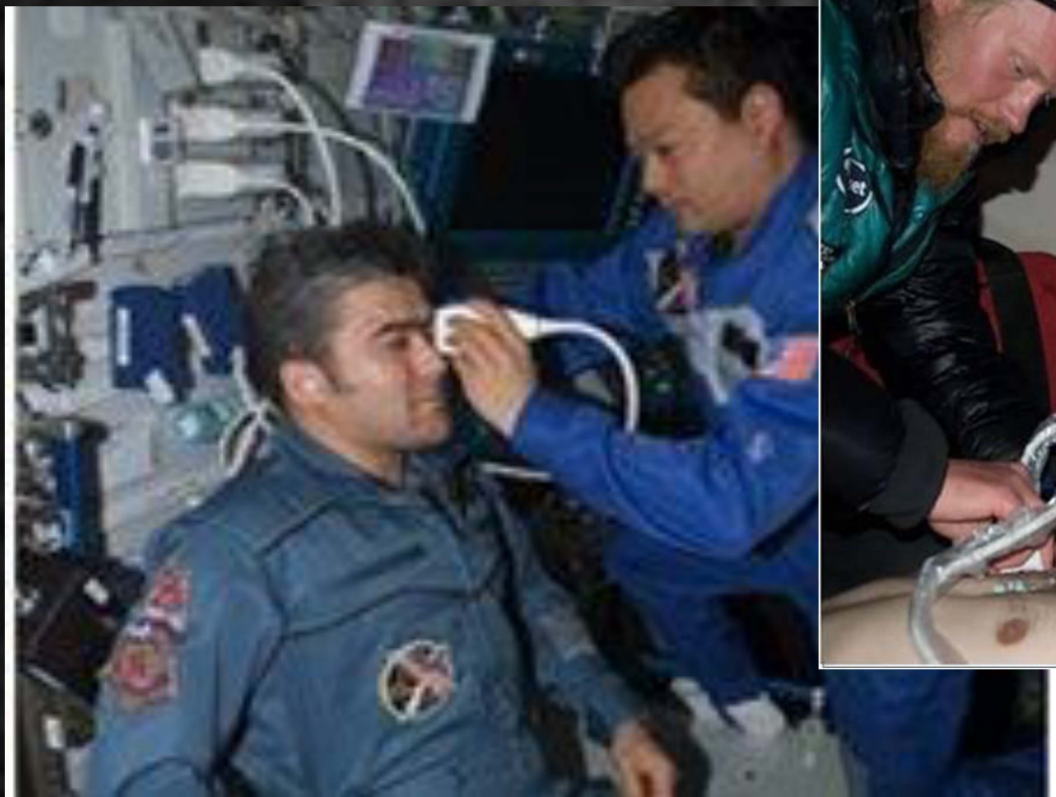
Levitación de Tejidos Celulares



Identificación de Microbios



Ultrasonido Diagnóstico para Telemedicina



Comportamiento Humano



